

In the claims: The claims are as follows.

1. (Previously presented) A method for use by a user equipment device and Node Bs of a wireless telecommunication system, the method for enabling Node B based control during soft handover of the maximum data rate allowed for uplink by the user equipment device as indicated by a pointer in the user equipment device, the soft handover resulting in a change of a controlling Node B from a first one of the Node Bs to a second one of the Node Bs, each of the Node Bs for providing commands for control of user equipment devices in at least one respective cell so that the user equipment device in soft handover is simultaneously in at least two cells each possibly controlled by a different one of the Node Bs, the method comprising:

the user equipment device signaling in uplink information indicating one of the cells as a scheduling cell;

each Node B receiving the uplink indicating one of the cells as the scheduling cell and able to provide scheduling commands, determining whether it is in control of the scheduling cell, and issuing scheduling commands for controlling the pointer in the user equipment device if it is in control, but issuing no such commands if it determines it is not in control of the scheduling cell.

2. (Previously presented) The method of claim 1, further comprising:

the user equipment device and also the Node B in control of the scheduling cell each synchronizing a respective pointer for indicating the maximum allowed uplink data rate for the user equipment device to a value according to a synchronization procedure.

3. (Previously presented) The method of claim 2, wherein according to the synchronization procedure, the Node B sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell.

4. (Previously presented) The method of claim 2, wherein according to the synchronization procedure, the Node B sets the pointer it maintains to a predetermined value.

5. (Previously presented) The method of claim 2, wherein according to the synchronization procedure, both the Node B and the user equipment device set their respective pointers according to predetermined criteria.

6. (Previously presented) The method of claim 2, wherein according to the synchronization procedure, the Node B sets the pointer it maintains to a value it selects and explicitly signals the value to the user equipment device.

7. (Previously presented) The method of claim 2, wherein according to the synchronization procedure, the Node B sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

8. (Original) The method of claim 1, wherein the Node B based control is provided using differential signaling.

9. (Original) The method of claim 1, wherein the Node B based control is provided using explicit signaling.

10. (Previously presented) A user equipment device, comprising:  
means for wirelessly communicating with Node Bs of a radio access network in a wireless communication system;

a pointer for indicating a maximum allowed rate of uplink to the wireless communication system;

means for adjusting the pointer responsive to scheduling commands received from a Node B controlling a cell in which the user equipment device is located; and

means for uplinking information indicating as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover, each cell possibly controlled by a different Node B.

11. (Previously presented) A user equipment device as in claim 10, wherein the user equipment device comprises:

means for selecting as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover.

12. (Previously presented) A user equipment device as in claim 10, wherein the user equipment device comprises:

means for determining whether scheduling commands are sent by the Node B controlling the scheduling cell and for disregarding all scheduling commands sent by other than the Node B controlling the scheduling cell.

13. (Previously presented) A user equipment device as in claim 10, wherein the user equipment device further comprises:

means for synchronizing the pointer to a corresponding pointer in the Node B controlling the scheduling cell.

14. (Previously presented) A user equipment device as in claim 13, wherein for synchronization, the user equipment device sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell.

15. (Previously presented) A user equipment device as in claim 13, wherein for synchronization, the user equipment device sets the pointer it maintains to a predetermined value.

16. (Previously presented) A user equipment device as in claim 13, wherein for synchronization, the user equipment device sets the pointer it maintains according to predetermined criteria.

17. (Previously presented) A user equipment device as in claim 13, wherein for synchronization, the user equipment device sets the pointer it maintains to a value explicitly signalled by the Node B.

18. (Previously presented) A user equipment device as in claim 13, wherein for synchronization, the user equipment device sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

19. (Previously presented) A Node B comprising:

means for wirelessly communicating with a user equipment device as an element of a radio access network of a wireless communication system; and

means for determining when to assume control of scheduling of the user equipment device and when to cease control of scheduling of the user equipment device based on information uplinked by the user equipment device indicating as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover.

20. (Previously presented) The Node B of claim 19, further comprising:

a pointer it maintains indicating a maximum allowed rate of uplink by the user equipment device; and

means by which the Node B synchronizes to the pointer in the user equipment device the pointer it maintains for indicating the maximum allowed uplink data rate for the user equipment device.

21. (Previously presented) The Node B of claim 20, wherein for synchronization, the Node B sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell.

22. (Previously presented) The Node B of claim 20, wherein for synchronization, the Node B sets the pointer it maintains to a predetermined value.

23. (Previously presented) The Node B of claim 20, wherein for synchronization, the Node B sets its pointer according to predetermined criteria.

24. (Previously presented) The Node B of claim 20, wherein for synchronization, the Node B sets the pointer it maintains to a value it selects and explicitly signals the value to the user equipment device.

25. (Previously presented) The Node B of claim 20, wherein for synchronization, the Node B sets the pointer it maintains to the data rate used in the uplink of the information indicating the scheduling cell or to a predetermined value, whichever is greater.

26. (Previously presented) A system, comprising a plurality of user equipment devices and a plurality of Node Bs, wherein the user equipment device is as recited in claim 10.

27. (Previously presented) A system, comprising a plurality of user equipment devices and a plurality of Node Bs, wherein at least two of the Node Bs are as recited in claim 19.

28. (Previously presented) A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a user equipment device, wherein said computer program code includes instructions for executing the steps recited in claim 1 as executed by a user equipment device.

29. (Previously presented) A computer program product comprising: a computer readable storage structure embodying computer program code thereon for execution by a computer processor in a Node B, wherein said computer program code includes instructions for executing the steps recited in claim 1 as executed by a Node B.

30. (Previously presented) An apparatus for use by a user equipment device, comprising:

a pointer for indicating a maximum allowed rate of uplink to a Node B of a wireless communication system controlling a cell in which the user equipment device is located;

means for adjusting the pointer in response to scheduling commands received from the Node B; and

means for uplinking information indicating as a scheduling cell either the cell controlled by the Node B or a cell controlled by another Node B to which the user equipment is being handed over in soft handover.

31. (Previously presented) An apparatus for use by a Node B of a wireless communication system, comprising:

a pointer for indicating a maximum allowed rate of uplink to the Node B by a user equipment device located in a cell controlled by the Node B;

means for providing scheduling commands to the user equipment device for adjusting a corresponding pointer in the user equipment device; and

means for determining whether to provide the scheduling commands based on information uplinked by the user equipment device indicating as a scheduling cell either the cell controlled by the Node B or a cell controlled by another Node B to which or from which the user equipment is being handed over in soft handover.

32. (Previously presented) An apparatus for use by a user equipment device, comprising:

a pointer for indicating a maximum allowed rate of uplink to a Node B of a wireless communication system controlling a cell in which the user equipment device is located; and

a processor, configured to:

adjust the pointer in response to scheduling commands received from the Node B; and

uplink information indicating as a scheduling cell either the cell controlled by the Node B or a cell controlled by another Node B to which the user equipment is being handed over in soft handover.

33. (Previously presented) A user equipment device as in claim 32, wherein the processor is further configured to:

select as a scheduling cell a particular cell from among a plurality of cells involved in a soft handover.

34. (Previously presented) A user equipment device as in claim 32, wherein the processor is further configured to:

determine whether scheduling commands are sent by the Node B controlling the scheduling cell and to disregard all scheduling commands sent by other than the Node B controlling the scheduling cell.

35. (Previously presented) An apparatus for use by a Node B of a wireless communication system, comprising:

a pointer for indicating a maximum allowed rate of uplink to the Node B by a user equipment device located in a cell controlled by the Node B;

a processor, configured to:

provide scheduling commands to the user equipment device for adjusting a corresponding pointer in the user equipment device; and

determine whether to provide the scheduling commands based on information uplinked by the user equipment device indicating as a scheduling cell either the cell controlled by the Node B or a cell controlled by another Node B to which or from which the user equipment is being handed over in soft handover.

36. (Previously presented) An apparatus as in claim 35, wherein the processor is further configured to:

synchronize to the corresponding pointer in the user equipment device the pointer in the Node B.

37. (Previously presented) An apparatus as in claim 36, wherein the processor is further configured so that for synchronization, the pointer in the Node B is set to the data rate used in the uplink of the information indicating the scheduling cell.

38. (New) A method for use by a user equipment in soft handover from a cell controlled by a Node B to another cell controlled by another Node B, comprising:

signaling in uplink information indicating one of the cells as a scheduling cell and so indicating one of the Node Bs as the scheduling Node B; and

receiving from the scheduling Node B scheduling commands for controlling a pointer in the user equipment device indicating a maximum allowed data rate for uplink.

39. (New) The method of claim 38, further comprising:

synchronizing the pointer to a corresponding Node B pointer maintained by the scheduling Node B, according to a synchronization procedure, and in synchronizing the pointer, the pointer is either set to the data rate used in the uplink of the information indicating the scheduling cell, or is set according to predetermined criteria, or is set to a value signaled by the scheduling Node B.

40. (New) A method for use by a Node B in communication with a user equipment device in soft handover to the Node B or from the Node B to another Node B, comprising:

receiving in uplink from the user equipment information indicating a cell as a scheduling cell;

determining whether the cell indicated as the scheduling cell is a cell controlled by the Node B; and

issuing scheduling commands for controlling a pointer in the user equipment device indicating a maximum allowed data rate for uplink but only if the cell indicated as the scheduling cell is a cell controlled by the Node B.

41. (New) The method of claim 40, further comprising:

synchronizing a pointer in the Node B to the pointer in the user equipment device, according to a synchronization procedure, and in synchronizing the pointers, the Node B pointer is either set to the data rate used in the uplink of the information indicating the scheduling cell, or is set according to predetermined criteria, or is set to a value selected by the Node B and the Node B signals the selected value to the user equipment device.

42. (New) A system, comprising a plurality of user equipment terminals and a plurality of Node Bs, wherein each user equipment device is as recited in claim 32, and each of the Node Bs includes an apparatus comprising:

a pointer for indicating a maximum allowed rate of uplink to the Node B by a user equipment device located in a cell controlled by the Node B;

a processor, configured to:

provide scheduling commands to the user equipment device located in a cell controlled by the Node B, for adjusting a corresponding pointer in the user equipment device; and

determine whether to provide the scheduling commands based on information uplinked by the user equipment device indicating as a scheduling cell either the cell controlled by the Node B or a cell controlled by another Node B to which or from which the user equipment is being handed over in soft handover.

43. (New) A system as in claim 42, wherein the processor is further configured to:

synchronize a pointer in the Node B to the pointer in the user equipment device, according to a synchronization procedure, and in synchronizing the pointers, the Node B pointer is either set to the data rate used in the uplink of the information

indicating the scheduling cell, or is set according to predetermined criteria, or is set to a value selected by the Node B and the Node B signals the selected value to the user equipment device.